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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,786	03/22/2006	Eric Julien	200312561-3	5842
22879 7590 03/12/2010 HEWLETT-PACKARD COMPANY Intellectual Property Administration 3404 E. Harmony Road Mail Stop 35 FORT COLLINS, CO 80528			EXAMINER LEE, JAE YOUNG	
			ART UNIT 2466	PAPER NUMBER
			NOTIFICATION DATE 03/12/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/561,786

Applicant(s)

JULIEN, ERIC

Examiner

JAE Y. LEE

Art Unit

2466

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 October 2009 has been entered.

Response to Amendments

2. Claims 3-7 have been canceled.
3. Claims 1, 5, 10, 13 have been amended.

Response to Arguments

4. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Specification

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).

- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is

necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
 - (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
 - (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.
6. The disclosure is objected to because of the following informalities: it does not include background of invention, brief summary of the invention, brief description of the drawings, and detailed description of the invention. The applicant needs to include the titles corresponding to the contents to distinguish one section from another.

7. The disclosure is objected to because of the following informalities: on page 5 line 23 states "the application 306 is to be sent via the signaling gateway 306" and the latter reference number of "signaling gateway 306" should be changed to 310 according to Fig. 3.

Appropriate correction is required.

Claim Objections

8. Claims 1, 5, 10, 13 are objected to under 37 CFR 1.75 because of the following informalities:

Claim 1 line 6 recites "MT3 API". It is suggested that applicant changes "MT3 API" to -- message transport part layer 3 (MTP3) application programming interface (API) --.

Claim 1 lines 7-8 recites "message transport part layer 3 (MTP3)". It is suggested that applicant changes "message transport part layer 3 (MTP3)" to -- MTP3 --.

Claim 5 line 9 recites "MT3 API". It is suggested that applicant changes "MT3 API" to -- message transport part layer 3 (MTP3) application programming interface (API) --.

Claim 10 line 2 recites "message transport part layer 3 (MTP3)". It is suggested that applicant changes "message transport part layer 3 (MTP3)" to -- MTP3 --.

Claim 13 line 13 recites "MT3 API". It is suggested that applicant changes "MT3 API" to -- message transport part layer 3 (MTP3) application programming interface (API) --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. **Claims 1, 16** are rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965).

For claim 1, Niermann discloses a method comprising:

- receiving a message from an originating network element at an interface of a service application, wherein the service application interfaces with both a Signaling System 7 (SS7) network and an Internet Protocol (IP) network (Fig. 4; Fig. 6; paragraph 0031 lines 1-5: SS7 protocol stack exchanging data between applications across the SS7 network and SCCP connectionless service;

paragraph 0034 lines 5-9: SG 114A has an SS7 interface 116 which allows it to receive information from nodes in an SS7 network and it includes an IP interface 118 which allows it to communicate over IP link 109; paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic), and wherein the message includes a point code associated with the network element (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic);

- accessing a network selection table comprised within a MT3 API level of a protocol stack to determine how to process the message, wherein the protocol stack comprises both a message transport part layer 3 (MTP3) layer and a MTP3 user adaptation layer (M3UA) layer, and wherein the network selection table comprises entries that associate point codes with network types (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network);

- processing the message with the MTP3 layer if it is determined that the point code associated with the originating network element corresponds to the SS7 network (Fig. 2, Fig. 5; paragraph 0028 lines 14-15: MTP level three provides message routing between signaling points in the SS7 network; paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network); and
- processing the message with the M3UA layer if it is determined that the point code associated with the originating network element corresponds to the IP network (Fig. 5; paragraph 0039 lines 5-11: M3UA is a protocol that supports the transport of any SS7 MTP3-User signaling over an IP network using the services of the SCTP layer; paragraph 0039 lines 15-17: M3UA to permit IP-enabled end nodes within the IP network and to support communications over the IP link; paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network

identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann discloses all the subject matter of claimed invention with the exception for a point code associated with the originating network element. Poole from the same or similar fields of endeavor discloses a point code associated with the originating network element (col 11 lines 50-54: IAM message includes SS7 DPC and OPC for addressing purpose). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate a point code associated with the originating network element a point code associated with the originating network element of Poole to the method of Niermann. The motivation would have been to assist with routing of information.

For claims 16, Niermann discloses

- wherein the originating network element is a service switching point (SSP) or a message switching center (MSC) (paragraph 0025 lines 5-8: SSP can provide an interface between a telecommunications switch such as a Mobile Switching Center (MSC) and other nodes of the SS7 network; paragraph 0031 lines 1-5: SS7 protocol stack exchanging data between applications across the SS7 network and SCCP connectionless service; paragraph 0034 lines 5-9: SG 114A has an SS7 interface 116 which allows it to receive information from nodes in an

SS7 network and it includes an IP interface 118 which allows it to communicate over IP link 109)

12. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) as applied to claim 1 above, and further in view of Miller al. (US 6,944,184).

For claim 2, Niermann discloses

- the service application (paragraph 0031 lines 1-5: SS7 protocol stack exchanging data between applications across the SS7 network and SCCP connectionless service)

Niermann and Poole disclose all the subject matter of claimed invention with the exception for a home location register (HLR) or a service control point (SCP). Miller from the same or similar fields of endeavor discloses a home location register (HLR) or a service control point (SCP) (col 2 lines 16-22: wireless network communication database applications include home network location registers (HLRs) and SCP including database system). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate a home location register (HLR) or a service control point (SCP) of Miller to the method of Niermann and Poole. The motivation would have been to provide HLR and SCP in order to provide database service in wireless network as well as wired network.

13. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) as applied to claim 1 above, and further in view of Garcia-Martin (US 7,054,326).

For claim 4, Niermann discloses

- the network selection table (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann and Poole disclose all the subject matter of claimed invention with the exception for network selection table populated automatically. Garcia-Martin from the same or similar fields of endeavor discloses network selection table populated automatically (col 5 lines 31-35: the look-up table used by the MTP level 3 is modified to replace signaling links with IP addresses and port numbers, where respective signaling points are connected to the IP network; it is implicitly performed automatically because the entity of the look-table is modified without human intervention). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate network selection table populated automatically of Garcia-Martin to

the method of Niermann and Poole. The motivation would have been to enhance efficiency of processing the network table in an automatic manner.

14. **Claims 5, 6, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) and Miller al. (US 6,944,184).

For claim 5, Niermann discloses a system comprising:

- A communication interface configured to receive a message from an originating network element at an interface of a service application, wherein the service application interfaces with both a Signaling System 7 (SS7) network and an Internet Protocol (IP) network (Fig. 4; Fig. 6; paragraph 0031 lines 1-5: SS7 protocol stack exchanging data between applications across the SS7 network and SCCP connectionless service; paragraph 0034 lines 5-9: SG 114A has an SS7 interface 116 which allows it to receive information from nodes in an SS7 network and it includes an IP interface 118 which allows it to communicate over IP link 109; paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic), and wherein the message includes a point code associated with the network element (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic);

- accessing a network selection table comprised within a MT3 API level of a protocol stack to determine how to process the message, wherein the protocol stack comprises both a message transport part layer 3 (MTP3) layer and a MTP3 user adaptation layer (M3UA) layer, and wherein the network selection table comprises entries that associate point codes with network types (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network);
- processing the message with the MTP3 layer if it is determined that the point code associated with the originating network element corresponds to the SS7 network (Fig. 2, Fig. 5; paragraph 0028 lines 14-15: MTP level three provides message routing between signaling points in the SS7 network; paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection

table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network); and

- processing the message with the M3UA layer if it is determined that the point code associated with the originating network element corresponds to the IP network (Fig. 5; paragraph 0039 lines 5-11: M3UA is a protocol that supports the transport of any SS7 MTP3-User signaling over an IP network using the services of the SCTP layer; paragraph 0039 lines 15-17: M3UA to permit IP-enabled end nodes within the IP network and to support communications over the IP link; paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann discloses all the subject matter of claimed invention with the exception for a point code associated with the originating network element. Poole from the same or similar fields of endeavor discloses a point code associated with the originating network element (col 11 lines 50-54: IAM message includes SS7 DPC and OPC for addressing purpose). Therefore, it would have been obvious to the person of ordinary

skill in the art at the time of invention was made to incorporate a point code associated with the originating network element a point code associated with the originating network element of Poole to the method of Niermann. The motivation would have been to assist with routing of information.

Niermann and Poole disclose all the subject matter of claimed invention with the exception for a processor and a computer-readable storage medium including computer-readable instruction stored therein that, upon execution by the processor, cause the device. Miller from the same or similar fields of endeavor discloses a processor and a computer-readable storage medium including computer-readable instruction stored therein that, upon execution by the processor, cause the device (col 4 lines 21-25: the functions for providing database access control are described herein as modules or processes. It is understood that these modules or process may be implemented as computer-executable instructions embodied in a computer-readable medium). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate a processor and a computer-readable storage medium including computer-readable instruction stored therein that, upon execution by the processor, cause the device of Miller to the method of Niermann and Poole. The motivation would have been to run the application program on the hardware system.

For claim 6, Niermann discloses

- the device (paragraph 0031 lines 1-5: SS7 protocol stack exchanging data between applications across the SS7 network and SCCP connectionless service;

paragraph 0034 lines 5-9: SG 114A has an SS7 interface 116 which allows it to receive information from nodes in an SS7 network and it includes an IP interface 118 which allows it to communicate over IP link 109)

Niermann and Poole disclose all the subject matter of claimed invention with the exception for a home location register (HLR) or a service control point (SCP). Miller from the same or similar fields of endeavor discloses a home location register (HLR) or a service control point (SCP) (col 2 lines 16-22: wireless network communication database applications include home network location registers (HLRs) and SCP including database system). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate a home location register (HLR) or a service control point (SCP) of Miller to the method of Niermann and Poole. The motivation would have been to provide HLR and SCP in order to provide database service in wireless network as well as wired network.

For claims 12, Niermann discloses

- wherein the originating network element is a service switching point (SSP) or a message switching center (MSC) (paragraph 0025 lines 5-8: SSP can provide an interface between a telecommunications switch such as a Mobile Switching Center (MSC) and other nodes of the SS7 network; paragraph 0031 lines 1-5: SS7 protocol stack exchanging data between applications across the SS7 network and SCCP connectionless service; paragraph 0034 lines 5-9: SG 114A has an SS7 interface 116 which allows it to receive information from nodes in an

SS7 network and it includes an IP interface 118 which allows it to communicate over IP link 109)

15. **Claims 8** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) and Miller al. (US 6,944,184) as applied to claim 5 above, and further in view of Garcia-Martin (US 7,054,326).

For claim 8, Niermann discloses

- the network selection table (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann, Poole, and Miller disclose all the subject matter of claimed invention with the exception for network selection table populated automatically. Garcia-Martin from the same or similar fields of endeavor discloses network selection table populated automatically (col 5 lines 31-35: the look-up table used by the MTP level 3 is modified to replace signaling links with IP addresses and port numbers, where respective signaling points are connected to the IP network; it is implicitly performed automatically because

the entity of the look-table is modified without human intervention). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate network selection table populated automatically of Garcia-Martin to the method of Niemann, Poole, and Miller. The motivation would have been to enhance efficiency of processing the network table in an automatic manner.

16. **Claims 9** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niemann (US 2002/0131427) in view of Poole et al. (US 6,590,965) and Miller al. (US 6,944,184) as applied to claim 5 above, and further in view of Lundstrom (US 2007/0220166).

For claim 9, Niemann discloses

- the network selection table (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niemann, Poole, and Miller disclose all the subject matter of claimed invention with the exception for the network selection table populated manually. Lundstrom from the same or similar fields of endeavor the network selection table populated manually

(paragraph 0016: a table is taught to be manually updated (populated)). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the network selection table populated manually of Lundstrom to the system of Niemann, Poole, and Miller. The motivation would have been to provide manual population of a table will enable a system to handle unforeseen events that are not accounted for in automatic population.

17. **Claims 10** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niemann (US 2002/0131427) in view of Poole et al. (US 6,590,965) and Miller al. (US 6,944,184) as applied to claim 5 above, and further in view of Prasad et al. (US 2003/0016684).

For claim 10, Niemann discloses

- the network selection table (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann, Poole, and Miller disclose all the subject matter of claimed invention with the exception for network selection table comprised within the MT3 API level of the protocol stack is separate from a routing table in the MTP3 layer. Prasad from the same or similar fields of endeavor discloses network selection table comprised within the MT3 API level of the protocol stack is separate from a routing table in the MTP3 layer (Fig. 6 550 routing table, 505 MTP 3, 580 M3UA; paragraph 0030 lines 11-23: the processor first reviews the SS7 routing table (RT) to determine the routing context associated with the routing code specified by the received SS7 signal as the destination address and the “upward” routing context indicates that the specified routing code can be identified within a separate IP routing table and thereby indicating the signal can be communicated over an IP network; paragraph 0031 lines 1-3: in response to a determination that the specified routing context is upward, the processor then reviews the IP routing table stored within the serving STP) Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate network selection table comprised within the MT3 API level of the protocol stack is separate from a routing table in the MTP3 layer of Prasad to the system of Niermann, Poole, and Miller. The motivation would have been to transiently connect and interface with IP network without requiring undesirable or complex changes (Prasad paragraph 0008 lines 10-13).

18. **Claims 11** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) and Miller al. (US

6,944,184) as applied to claim 5 above, and further in view of Prasad et al. (US 2003/0016684).

For claim 11, Niemann discloses

- the device (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niemann, Poole, and Miller disclose all the subject matter of claimed invention with the exception for device is not a signaling gateway. Prasad from the same or similar fields of endeavor discloses device is not a signaling gateway (Fig. 3: 20A, 20C: STP, Fig. 6 550 routing table, 505 MTP 3, 580 M3UA; paragraph 0030 lines 11-23: the processor first reviews the SS7 routing table (RT) to determine the routing context associated with the routing code specified by the received SS7 signal as the destination address and the "upward" routing context indicates that the specified routing code can be identified within a separate IP routing table and thereby indicating the signal can be communicated over an IP network; paragraph 0031 lines 1-3: in response to a determination that the specified routing context is upward, the processor then reviews

the IP routing table stored within the serving STP) Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate device is not a signaling gateway of Prasad to the system of Niermann, Poole, and Miller. The motivation would have been to enhance flexibility of performing the functionality at STP in addition to the signaling gateway.

19. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) as applied to claim 1 above, and further in view of Prasad et al. (US 2003/0016684).

For claim 13, Niermann discloses

- the network selection table (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann and Poole disclose all the subject matter of claimed invention with the exception for network selection table comprised within the MT3 API level of the protocol stack is separate from a routing table in the MTP3 layer. Prasad from the same or

similar fields of endeavor discloses network selection table comprised within the MT3 API level of the protocol stack is separate from a routing table in the MTP3 layer (Fig. 6 550 routing table, 505 MTP 3, 580 M3UA; paragraph 0030 lines 11-23: the processor first reviews the SS7 routing table (RT) to determine the routing context associated with the routing code specified by the received SS7 signal as the destination address and the "upward" routing context indicates that the specified routing code can be identified within a separate IP routing table and thereby indicating the signal can be communicated over an IP network; paragraph 0031 lines 1-3: in response to a determination that the specified routing context is upward, the processor then reviews the IP routing table stored within the serving STP) Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate network selection table comprised within the MT3 API level of the protocol stack is separate from a routing table in the MTP3 layer of Prasad to the method of Niermann and Poole. The motivation would have been to transiently connect and interface with IP network without requiring undesirable or complex changes (Prasad paragraph 0008 lines 10-13).

20. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) as applied to claim 1 above, and further in view of Lundstrom (US 2007/0220166).

For claim 14, Niermann discloses

- the network selection table (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann and Poole disclose all the subject matter of claimed invention with the exception for the network selection table populated manually. Lundstrom from the same or similar fields of endeavor the network selection table populated manually (paragraph 0016: a table is taught to be manually updated (populated)). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the network selection table populated manually of Lundstrom to the system of Niermann and Poole. The motivation would have been to provide manual population of a table will enable a system to handle unforeseen events that are not accounted for in automatic population.

21. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable by Niermann (US 2002/0131427) in view of Poole et al. (US 6,590,965) as applied to claim 1 above, and further in view of Prasad et al. (US 2003/0016684).

For claim 15, Niermann discloses

- the device (paragraph 0040 lines 6-9: the SG 114A will route the traffic it receives from its SS7 interface 116 using the Network Indicator (NI) and Destination Point Code (DPC) of the traffic; paragraph 0041 lines 5-8: the SG 114A applies global title translation to determine the destination point code, then it uses the network identifier and the DPC to determine how to route the SS7 signaling traffic; the network selection table implicitly exist because the signaling gateway 114A determines the destination and the network based upon NI and DPC received from SS7 network)

Niermann and Poole disclose all the subject matter of claimed invention with the exception for device is not a signaling gateway. Prasad from the same or similar fields of endeavor discloses device is not a signaling gateway (Fig. 3: 20A, 20C: STP, Fig. 6 550 routing table, 505 MTP 3, 580 M3UA; paragraph 0030 lines 11-23: the processor first reviews the SS7 routing table (RT) to determine the routing context associated with the routing code specified by the received SS7 signal as the destination address and the "upward" routing context indicates that the specified routing code can be identified within a separate IP routing table and thereby indicating the signal can be communicated over an IP network; paragraph 0031 lines 1-3: in response to a determination that the specified routing context is upward, the processor then reviews the IP routing table stored within the serving STP) Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate device is not a signaling gateway of Prasad to the method of Niermann and

Poole. The motivation would have been to enhance flexibility of performing the functionality at STP in addition to the signaling gateway.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jae Y. Lee whose telephone number is (571) 270-3936. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on (571) 272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jae Y Lee/
Examiner, Art Unit 2466

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